

ALFA 85







AIR HEATERS

ALFA 85







AIR HEATERS HANDLING \(\sigma \)

ALFA 85 - Applications

- Restaurants
- Bars
- Hotels
- Offices

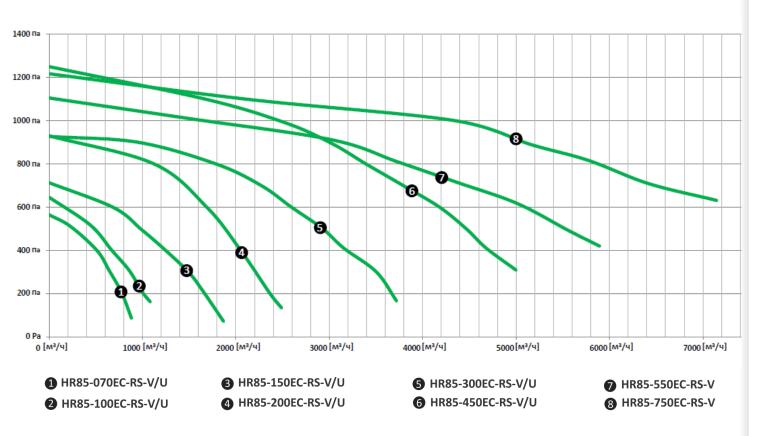
Sport centres





ALFA 85 – Air flow range

- Vertical 700, 1000, 1500, 2000, 3000, 4500, 5500, 7500 m³/h
- Upper 700, 1000, 1500, 2000, 3000, 4500 m³/h





ALFA 85 – Types and versions

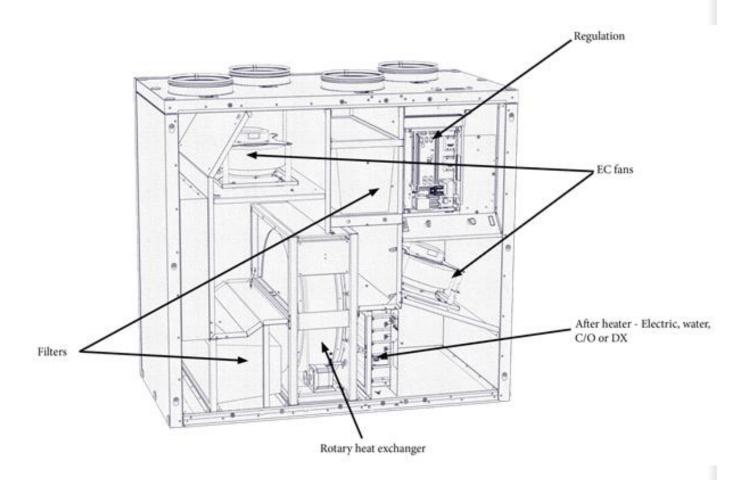
- Vertical and Upper
- Integrated afterheater/cooler electric, hot water (heating only), water change-over, DX coil
- Left and right service access







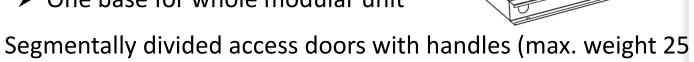
ALFA 85 – Main components



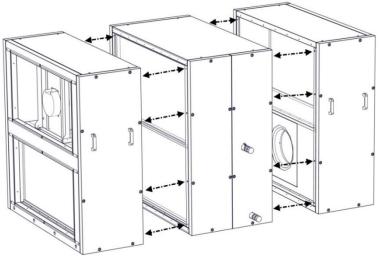


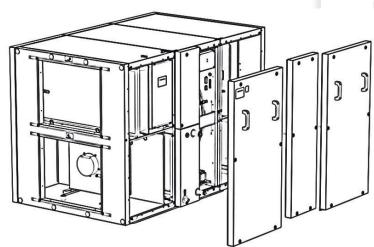
ALFA 85 – Construction

- Compact (up to 2000 m³/h)
- Modular (from 3000 m³/h)
 - Modular units connected with screws
 - One base for whole modular unit



Segmentally divided access doors with handles (max. weight 25 kg)







ANDLING SHEAT RECOVERY DECOVERY DECOVER

ALFA 85 – Outdoor installation

- Outdoor installation down to -20 °C
- Construction without thermal bridges
- Double corrosion protection (galvanized steel + powder coating)
- Insulated sandwich panels with extra thermal and sound-proofing insulation (50 mm)
- When installed outside, unit requires rain protection (rain cover and base are supplied seperately)
- Insulated controls



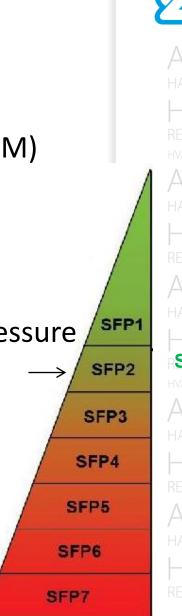
ALFA 85 - Fans

- High efficiency EC fans
- Radial fans with backward curved blades (EBM)
- Low SFP
- Silent operation
- Fluent regulation of fan speed
- Possibity to set an off-set of fans for over-pressure or under-pressure ventilation
- IP54











ALFA 85 – Rotary heat exchanger

- High efficiency of heat recovery up to 85 %
- Humidity recovery
- Automatic control of rotation
- Double-sided seal for maximum wheel tightness
- Maximum rigidity of casing
- Step motor ensuring high reliability











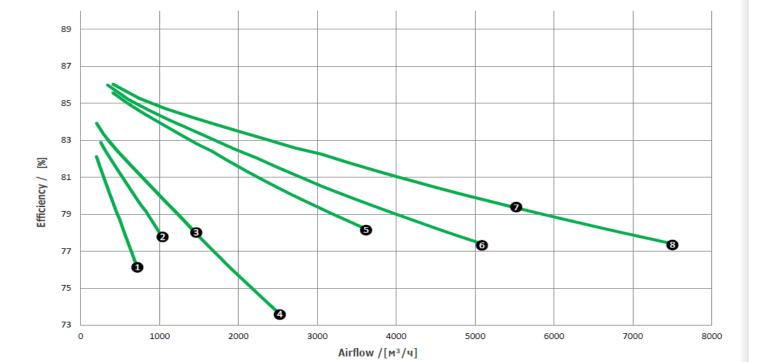
ALFA 85 – Rotary heat exchanger

Heat recovery efficiency:

● HR85-070EC-RS-V/U

2 HR85-100EC-RS-V/U





6 HR85-300EC-RS-V/U

6 HR85-450EC-RS-V/U

THR85-550EC-RS-V

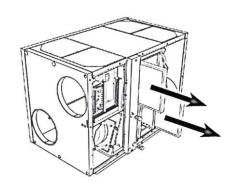
R HR85-750EC-RS-V

HR85-150EC-RS-V/U

4 HR85-200EC-RS-V/U

ALFA 85 – Filters

- Filter class M5 on inlet and outlet
- Filter class F7 available as optional accessories
- Easy exchange
- High durability
- Signalization of clogged filter on the controller
- Evaluation of filters status based on pressure difference in the whole range of air flow





ALFA 85 – Controls



- Integrated sophisticated controls
- Fully equipped with temperature and pressure sensors
- 3 control options
- Universal controls for CAV, VAV and DCV regimes
- Automatic and continuous by-pass
- Antifreeze protection
- Fire-flow regime
- Freecooling, boost, time modes, fan offset, diagnostic menu, energy savings indicator





ALFA 85 – Controls



- Integrated time switch (week or day)
- Automatic clogged filter signalization
- Automatic detection of heating / cooling (DX, C/O)
- Boost, freecooling regimes
- Detailed service settings (PID, duct temperature, direct control, fans offset, fire flow etc.)
- CO₂, RH, PIR or another 0-10V sensors









ALFA 85 – Anti-freeze protection

Automatic logic integrated in controls



- 1) Decrease of heat exchanger rotation
- 2) Shut-down of the unit*

* May appear out of permissible operating temperature range only





ALFA 85 - Controller



- Modern control with colored touchscreen panel
- Easy to operate
- Faults text signalization
- Possibility to connect 2 contollers thanks to dual ModBUS







ALFA 85 – Other control options

- Default controller with touch screen
- User and service menu
- Intuitive control

- Connection to the central control system (BMS)
- Modbus RTU communication protocol







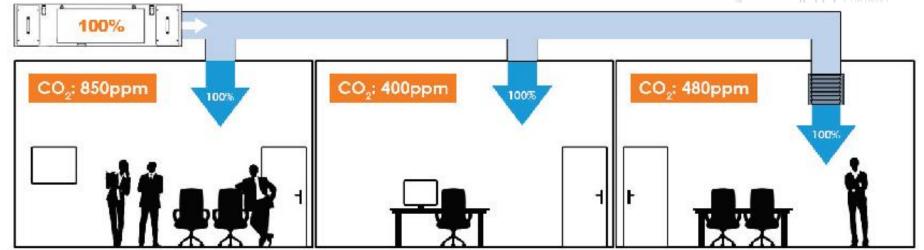
- Control via mobile device (Android OS)
- Possibility to remote control via web interface



ALFA 85 – Monozone ventilation



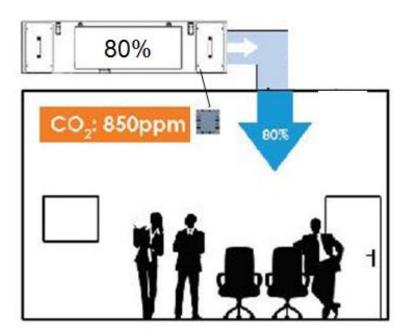
 CAV - Constant Air Volume = means there is still the same air volume even though the pressure in the system changes



ALFA 85 – Monozone ventilation



 DCV - Demand Control Ventilation = means there is as much air volume as it is needed in the current situation according to a sensor connected directly to the unit



ALFA 85 - Multizone ventilation



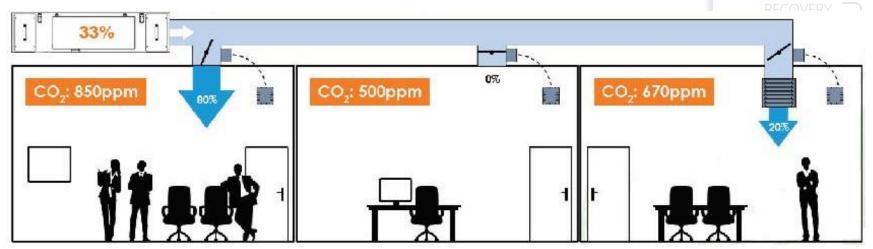
• VAV - Variable Air Volume = means there is constant pressure in the system to supply different air volume

CO₂: 850ppm CO₂: 500ppm CO₂: 480ppm

ALFA 85 – Multizone ventilation



• **DCV - D**emand **C**ontrol **V**entilation = means there is as much air volume as it is needed in the current situation according to sensors in different zones. Needs to be used with VAV boxes •



Automatic regulation with lowest operating costs for ventilation

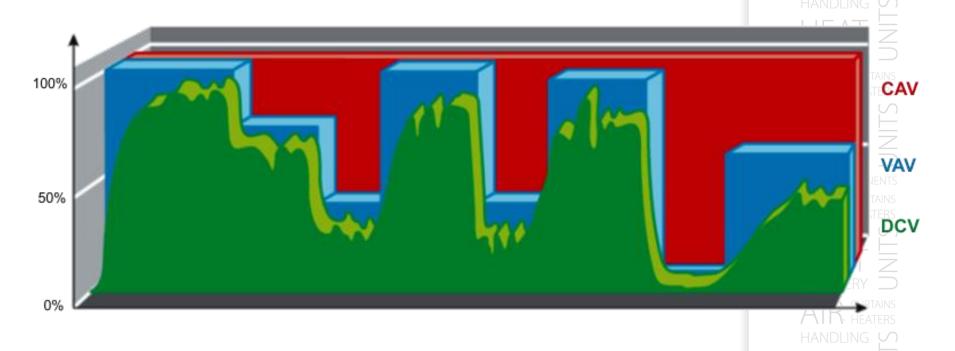


ALFA 85 – Regulation comparison



AIR HEATERS HANDLING SHEAT RECOVERY

Comparison of different ventilation systems – CAV, VAV and DCV



DCV ensures optimal air flow and react flexibly to the current demand on ventilation

ALFA 85 – Main advantages

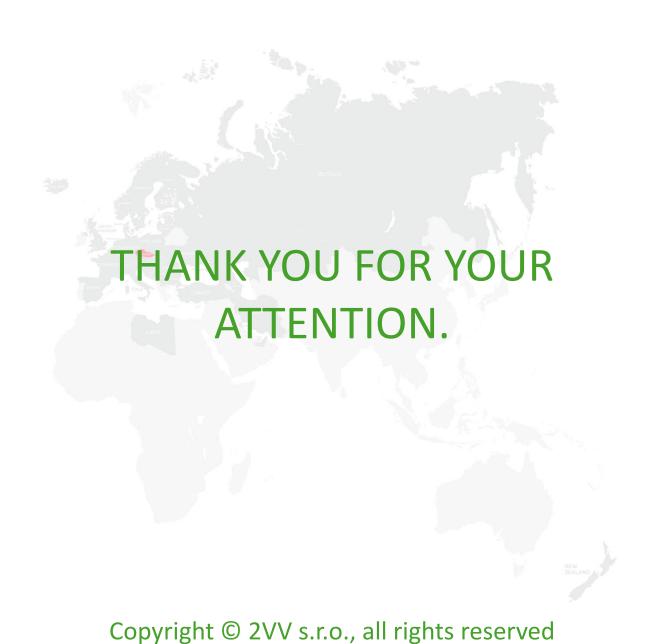
- Plug & Play intelligent regulation
- Efficiency of heat recovery up to 85 %
- EUROVENT certification (heat exchanger)
- Easy installation and serviceability
- Low noise level from 46,1 dB(A)
- Indoor and outdoor installation

Wide range of positions - vertical and top access, left and right





AIR CURTAINS
HEATERS
HANCING 10

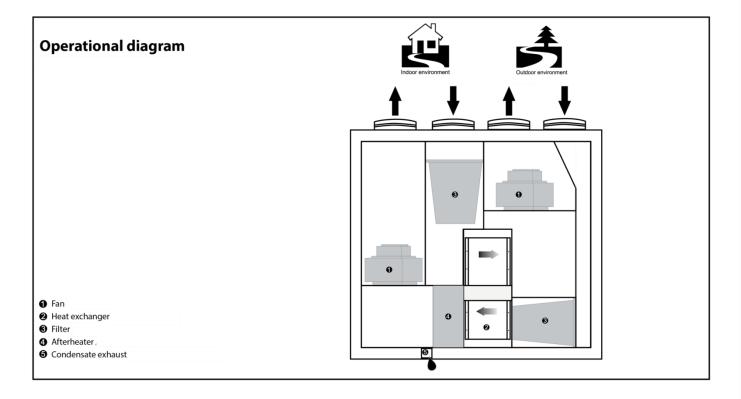




Technical section

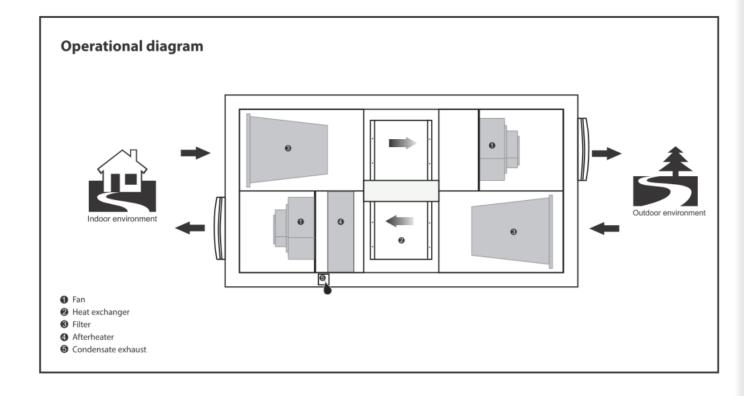


Main parts – ALFA 85 Top





Main parts – ALFA 85 vertical





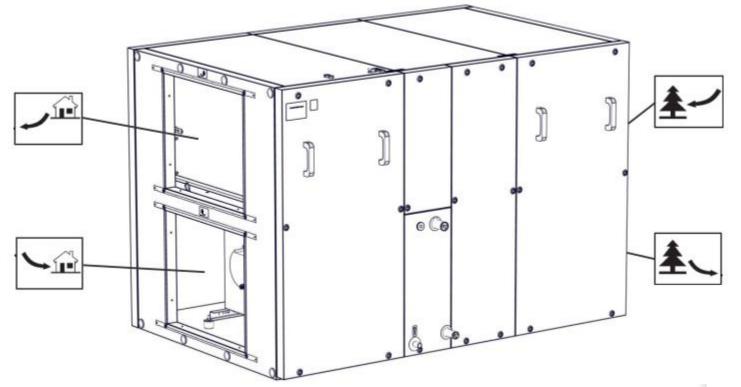
Connection of air ducts – ALFA 85 Top



Connection of air ducts – ALFA 85 vertical

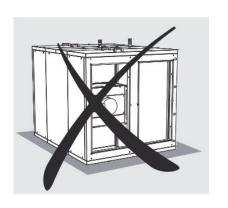




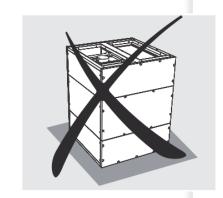


Permitted mounting positions





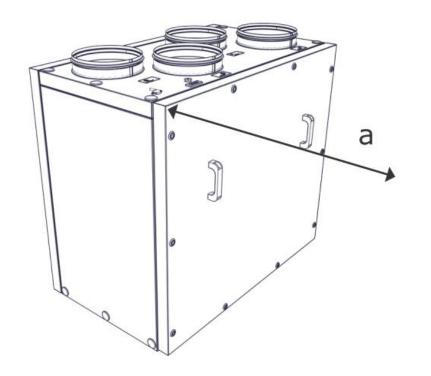






Access distances for servicing the unit



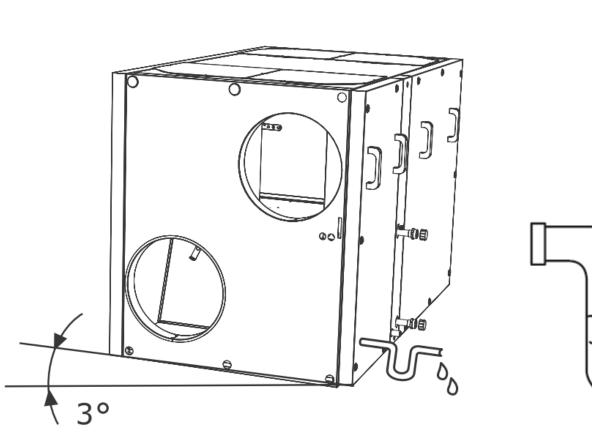


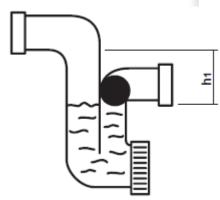
Models V/U		
700		
1000	0.00	INS ERS
1500	900	
2000	200) NTS
3000	1200	
4500	1200	<u></u>
5500	1500	
7500	1500	INS ERS
	HANDING (

HANDLING Y HEAT Z RECOVERY

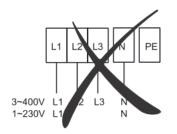
Condensate outlet from the water/DX coil

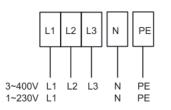




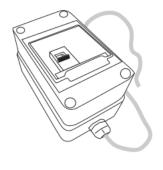


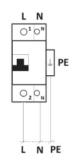
Connecting supply cable







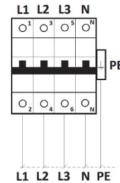




1p+N C 10A

3x1,5

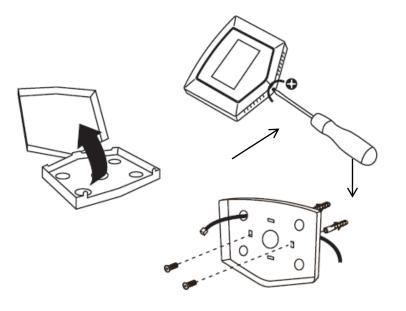


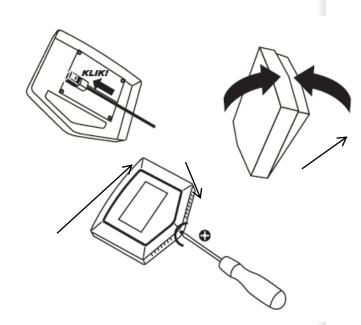


3p+N C 10A	5x1,5
3p+N C 16A	5x2,5
3p+N C 20A	5x2,5
3p+N C 32A	5x4
3p+N C 63A	5x10



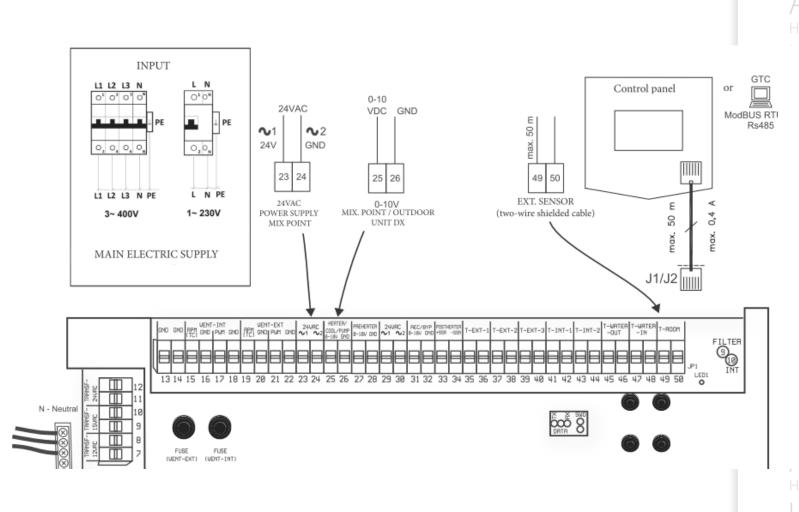
Mounting the control panel

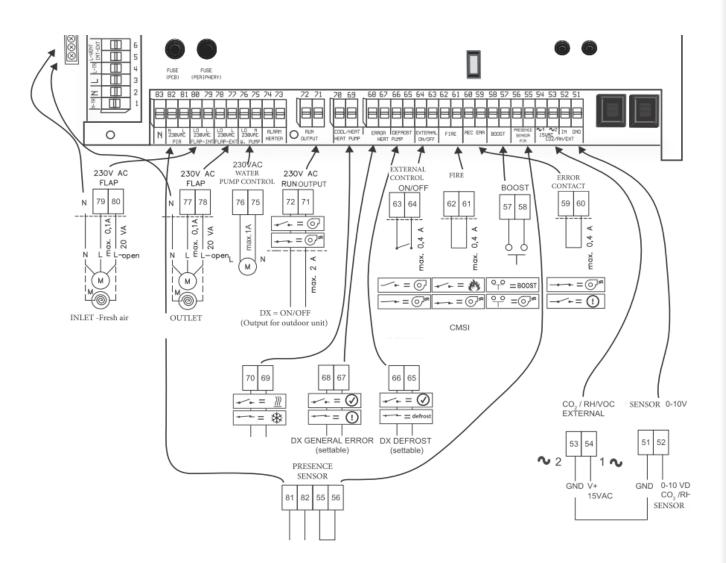














Accessories



ATK HEATERS
HANDLING MARKET
HEAT EXPENSE
RECOVERY

HVAC COMPONENT

AIR curtains heaters handling eq

HEAT Z

AIR CURTAINS
HEATERS
HANDLING

HEAT

HVAC COMPONENTS

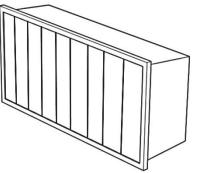
AIR CURTAINS
HEATERS
HANDLING

HEAT E

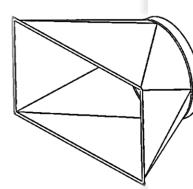
AIR CURTAINS
HEATERS
HANDLING

HEAT E

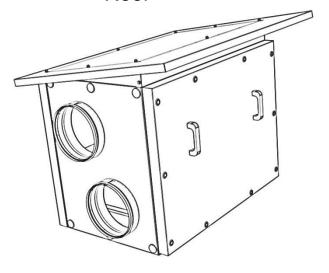




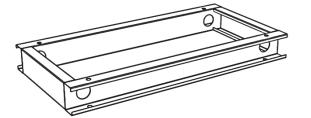
Adapter



Roof



Base



Accessorries

CO₂ sensors



RH sensors



Duct CO₂ sensors



Communication cables



